



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,714	08/25/2003	Thomas J. Kelly	08350.3304-05	9838
58982	7590	10/09/2007	EXAMINER	
CATERPILLAR/FINNEGAN, HENDERSON, L.L.P. 901 New York Avenue, NW WASHINGTON, DC 20001-4413			GYORFI, THOMAS A	
		ART UNIT	PAPER NUMBER	
		2135		
		MAIL DATE	DELIVERY MODE	
		10/09/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/646,714	KELLY ET AL.
	Examiner Tom Gyorfi	Art Unit 2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 May 2007 and 19 July 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-23 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-23 remain for examination. The amendment filed 5/9/07 amended claims 1, 12, and 23; and the supplemental amendment file 7/19/07 further amended claims 1, 6, 8, 9, 12, 16, 19, 20, and 23.

Response to Arguments

2. Examiner acknowledges Applicant's remarks regarding Examiner's objection to the Information Disclosure Statements previously filed in this application. However, it is noted that the vast majority of patents not considered from the IDS papers are classified into technological areas having little to no relevance to the claimed subject matter. In particular, the majority of patents not considered belong to U.S. classification 701, directed towards "Vehicles, Navigation, and Relative Location"; Examiner fails to see how patents regarding vehicles have any bearing on the claimed subject matter, which recites the overly broad limitation of a "first machine" acting in the capacity of a firewall/network gateway, which is more properly classified to U.S. classification 726.

3. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-7, 10-18, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,052,788 (hereinafter, "Wesinger"), and further in view of RFC 3142 : "An IPv6-to-IPv4 Transport Relay Translator" (hereinafter, "Hagino").

Regarding claim 1:

Wesinger discloses a system for managing communications comprising: a first off-board system connected to a first off-board data link, wherein the off-board module is remotely located from the first machine (Figure 1; see also col. 8, lines 15-20); a gateway embedded in the first machine including: a communication application that uses a translation table stored in the gateway for converting information from a first protocol format to a second protocol format (col. 7, lines 45-53; col. 8, lines 35-55), and a firewall application that is configured to perform, when executed by a processor, a firewall process that controls access to proprietary information associated with the first machine (col. 9, lines 20-67), wherein the firewall process determines whether a message received from the first off-board system is authorized based on a profile associated with the first off-board system, whether a message received from the first off-board module includes a parameter identifier corresponding to one of a number of parameter identifiers included in the translation table, and denies access to the proprietary information based on at least one of (i) a determination that the parameter identifier does not correspond to one of the number of parameter identifiers in the translation table and (ii) the profile associated with the off-board system (Ibid, and col. 16, lines 13-37).

Wesinger does not explicitly recite conversion from a first *communication* protocol format to a second *communication* protocol format. However, by the time the instant invention was made there existed a need for firewalls, routers, and other networked devices to be able to support both IPv4 (the standard communication protocol of the Internet) and IPv6 (a new communications protocol ultimately intended to replace IPv4, see the pertinent prior art below). Furthermore, the ability for a communication application that uses a translation table stored in a gateway for converting from one communication protocol format [IPv6] to a second communication protocol format [IPv4] was known in the art, as disclosed by Hagino (pages 3-4, "3. IPv6-to-IPv4 transport relay translator"; translation tables at page 4, "Address mapping"). The claim would have been obvious because the design incentives inherent to IPv6 (as compared to IPv4) provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Regarding claims 12 and 23:

Wesinger discloses a method (and computer program for implementing same) for managing communications comprising: receiving a request generated by a first off-board system and transmitted on a first off-board data link (col. 6, lines 60-67); and invoking a firewall application that performs a firewall process including the steps of: identifying a destination device associated with the request (col. 8, lines 15-35), determining whether the request is authorized based on a profile associated with the first off-board system (col. 16, lines 13-37); determining whether the request includes a

parameter identifier that matches a parameter identifier included in a memory location maintained by the gateway (col. 15, lines 1-13), and denying or granting access to proprietary information based on the two determining steps (Ibid).

Wesinger does not explicitly recite conversion from a first *communication* protocol format to a second *communication* protocol format. However, by the time the instant invention was made there existed a need for firewalls, routers, and other networked devices to be able to support both IPv4 (the standard communication protocol of the Internet) and IPv6 (a new communications protocol ultimately intended to replace IPv4, see the pertinent prior art below). Furthermore, the ability for a communication application that uses a translation table stored in a gateway for converting from one communication protocol format [IPv6] to a second communication protocol format [IPv4] was known in the art, as disclosed by Hagino (pages 3-4, “3. IPv6-to-IPv4 transport relay translator”; translation tables at page 4, “Address mapping”). The claim would have been obvious because the design incentives inherent to IPv6 (as compared to IPv4) provided a reason to make an adaptation, and the invention resulted from application of the prior knowledge in a predictable manner.

Regarding claim 2:

Wesinger further discloses wherein the firewall process denies or grants access to the proprietary information based on a profile associated with a user operating the first off-board system (col. 16, lines 13-25).

Regarding claims 3 and 13:

Wesinger further discloses wherein the profile is associated with a user of the first off-board system and defines a type of access to a selected portion of the proprietary information (Ibid).

Regarding claims 4 and 14:

Wesinger further discloses wherein the proprietary information includes a parameter identifier data value (col. 15, lines 1-13).

Regarding claims 5 and 15:

Wesinger further discloses wherein the firewall process allows the first off-board system to access the proprietary information to access the proprietary information when the parameter identifier in the message matches at least one parameter identifier included in the translation table (col. 15, lines 1-13).

Regarding claims 6 and 16:

Wesinger further discloses wherein the gateway executes the communication application to convert the request to a different communication protocol format when the firewall process allows the off-board system to access the proprietary information (col. 11, lines 15-25).

Regarding claims 7 and 18:

Wesinger further discloses wherein the firewall process denies access to an on-board module based on parameter information included in a second message (col. 10, lines 51-56).

Regarding claims 10 and 21:

Wesinger further discloses wherein the firewall application performs a second firewall process that controls access to the proprietary information based on a timing profile associated with the type of request (col. 15, lines 10-15).

Regarding claims 11 and 22:

Wesinger further discloses wherein the request is a batch request including multiple sub-requests associated with the proprietary information based on a determination that parameter identifiers associated with a respective portion of the sub-requests do not match any of the parameter identifiers included in the translation table (col. 14, lines 23-30).

Regarding claim 17:

Wesinger further discloses wherein the memory location is included in a translation table used by the communication application to convert parameter data values to different formats (col. 7, lines 45-53).

6. Claims 8, 9, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wesinger as applied to claims 1 and 16 above, and further in view of Bade et al. (U.S. Patent 6,778,837).

Regarding claims 8 and 19:

Wesinger does not explicitly disclose wherein the first machine moves between, or within, an environment and the firewall controls access to proprietary information located in a remote location based on the position of the first machine. However, Bade discloses this limitation (col. 2, lines 38-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to permit or deny access to [mobile] devices based on location as disclosed by Bade. The motivation for doing so would be to prevent unauthorized users from accessing proprietary information in the event the device was stolen or misplaced (*Ibid.*, and col. 2, lines 1-10).

Regarding claims 9 and 20:

Wesinger and Bade disclose or suggest all the limitations of claims 8 and 19 above. Wesinger and Bade further disclose wherein the gateway receives the message from a second gateway included in a second machine that has moved into the communication range of the first machine (Wesinger: Figure 1, and col. 7, lines 12-35; Bade: col. 3, lines 35-45).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- "Internetworking with TCP/IP" by Douglas Comer discloses additional details regarding IPv6, its advantages over IPv4, and motivations for using IPv6
- "RFC1883" also discloses further details regarding IPv6 and its advantages
- The following references disclose firewalls with IPv6/IPv4 conversion ability:
 - "The Cable Guy – April 2003: Windows Peer-to-peer networking"
 - U.S. Patent Application Publication 2004/0052257 to Aldo et al.
 - U.S. Patent 6,922,786 to Lyndon Ong

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

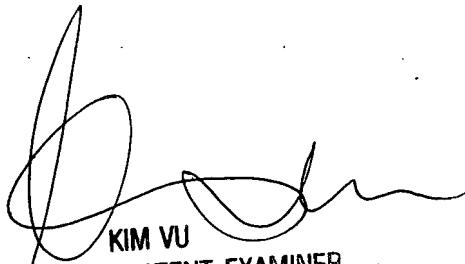
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG
10/01/07



KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100